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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/970,971	10/04/2001	Muthiah Manoharan	ISIS-4789	3195
32650	7590	09/14/2006	EXAMINER	
WOODCOCK WASHBURN LLP ONE LIBERTY PLACE - 46TH FLOOR PHILADELPHIA, PA 19103			OWENS JR, HOWARD V	
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Serial No. : 09/970,971

Applicant : Manoharan et al.

Filing Date : October 4, 2001

Date Mailed : September 13, 2006

## ACKNOWLEDGEMENT OF REQUEST

### *Notice of Allowance/Allowability Mailed*

The request for a corrected notice of allowance/allowability, dated June 24, 2005, has been received by the U.S. Patent and Trademark Office. A corrected notice of allowance/allowability will not be mailed, but the Office has verified the following information, and made any necessary corrections to Office computer data:

- The allowed claims are 1-13, 18 and 21-32

A. Marty Willis  
For the Office of Patent Publication



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The request for a copy of the initialed PTO 1449, dated June 24, 2005, has been received by the U.S. Patent and Trademark Office.

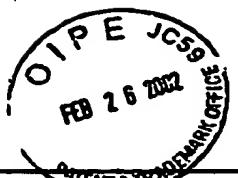
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Form PTO-1449 Modified		Docket No. ISIS-4789	Serial No. 09/970,971
List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Manoharan et al.	
U.S. Department of Commerce Patent and Trademark Office		Filing Date October 4, 2001	Group Not yet assigned
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
<i>GK</i>	AA	Abe, A. et al., "Conformational Energies and the Random-Coil Dimensions and Dipole Moments of Polyoxides CH <sub>3</sub> O[(CH <sub>2</sub> ) <sub>y</sub> O] <sub>x</sub> CH <sub>3</sub> ," <i>J. Am. Chem. Soc.</i> , 1976, 6468-6476	
	AB	Albert, P.R. et al., "Antisense knockouts: molecular scalpels for the dissection of signal transduction", <i>Trends Pharmacol. Sci.</i> , 1994, 15, 250-254	
	AC	Altmann, K. et al., "Second Generation Antisense Oligonucleotides-Inhibition of Pkc-1 And c-RAF Kinase Expression by Chimeric Oligonucleotides Incorporating 6-Substituted Carbocyclic Nucleosides and 2'-O-Ethylene Glycol Substituted Ribonucleosides," <i>Nucleosides &amp; Nucleotides</i> , 1997, 16(7-9), 917-926	
	AD	Altmann, K. et al., "Second-Generation Antisense Oligonucleotides: Structure-Activity Relationships and the Design of Improved Signal-Transduction Inhibitors", <i>Biochem. Soc. Trans.</i> , 1996, 24, 630-637	
	AE	Altmann, K. et al., "Second Generation of Antisense Oligonucleotides: From Nuclease Resistance to Biological Efficacy in Animals," <i>Chimia</i> , 1996, 50, 168-176	
	AF	Baker, B.F. et al., "2'-O-(2-Methoxy)ethyl-modified Anti-intercellular Adhesion Molecule 1 (ICAM-1) Oligonucleotides Selectively Increase the ICAM-1 Translation Initiation Complex in Human Umbilical Vein Endothelial Cells", <i>J. Biol. Chem.</i> , 1997, 272, 11994-12000	
	AG	Beal, P. A. et al., "Second Structural Motif for Recognition of DNA by Oligonucleotide-Directed Triple-Helix Formation," <i>Science</i> , 1991, 251, 1360-1363	
	AH	Beaucage, S.L. et al., "Advances in the Synthesis of Oligonucleotides by the Phosphoramidite Approach", <i>Tetrahedron</i> , 1992, 48, 2223-2311	
	AI	Berger et al., "Crystal structures of B-DNA with incorporated 2'-deoxy-2'-fluoro-arabino-furanosyl thymines: implications of conformational preorganization for duplex stability," <i>Nucl. Acids Res.</i> , 1998, 26(10), 2473-2480	
<i>GK</i>	AJ	Berkow et al. (eds.), <i>The Merck Manual of Diagnosis and Therapy</i> , 15th Edition, Rahway, N.J., 1987, 2263-2277	
EXAMINER	<i>G. Kozlowski</i>		
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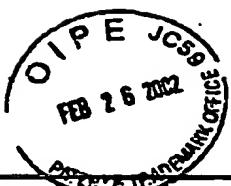
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	AL	Berkow et al. (eds.), <i>The Merck Manual of Diagnosis and Therapy</i> , 15th Edition, Rahway, N.J., 1987, 2286-2293	
	AM	Berkow et al. (eds.), <i>The Merck Manual of Diagnosis and Therapy</i> , 15 <sup>th</sup> Edition, Rahway, NJ, 1987, 2301-2310	
	AN	Bernhard, E.J. et al., "Direct Evidence Linking Expression of Matrix Metalloproteinase 9 (92-kDa gelatinase/collagenase) to the metastatic phenotype in transformed rat embryo cells," <i>Proc. Natl. Acad. Sci. USA</i> , 1994, 91, 4293-4297	
	AO	Birkedal-Hansen, H. et al., "Proteolytic Remodeling of Extracellular Matrix," <i>Curr. Op. Cell Biol.</i> , 1995, 7, 728-735	
	AP	Bock, L. C. et al., "Selection of Single-Stranded DNA Molecules that Bind and Inhibit Human Thrombin," <i>Nature</i> , 1992, 355, 564-566	
	AQ	Böggemeyer, E. et al., "Borrelia Burgdorferi Upregulates the Adhesion Molecules E-selectin, P-selectin, ICAM-1 and VCAM-1 on Mouse Endothelioma Cells in vitro," <i>Cell Adhes. Commun.</i> , 1994, 2, 145-157	
	AR	Conte, M. R. "Confirmational Properties and Thermodynamics of the RNA Duplex r(CGCAAAUUUUGCG)2: Comparison with the DNA Analogue d(CGCAAATTGCG)2," <i>Nucl. Acids Res.</i> , 1997, 25(13), 2627-2634	
	AS	Cornell, W. D. et al., "A Second Generation Force Field for the Simulation of Proteins, Nucleic Acids, and Organic Molecules," <i>J. Am. Chem. Soc.</i> , 1995, 117, 5179-5197	
GK	AT	Cory, A.H. et al., "2'-Deoxy-2'-Methylene Derivatives of Adenosine, Guanosine, Tubercidin, Cytidine and Uridine as Inhibitors of L1210 Cell Growth in Culture," <i>Biochem. Pharmacol.</i> , 1994, 47(2), 365-371	
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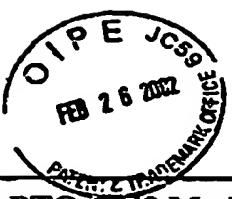
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<i>GK</i>	AU	Cowser, L. M. et al., "In vitro and In Vivo Activity of Antisense Inhibitors of ras: Potential for Clinical Development," <i>Anti-Cancer Drug Design</i> , 1997, 12, 359-371	
	AV	Crooke, S.T. et al., "Pharmacokinetic Properties of Several Novel Oligonucleotide Analogs in mice", <i>J. Pharmacol. Exp. Therapeutics</i> , 1996, 277, 923-937	
	AW	Crooke, S.T. et al., "Kinetic characteristics of <i>Escherichia coli</i> RNase H1: cleavage of various antisense oligonucleotide-RNA duplexes", <i>Biochem. J.</i> , 1995, 312, 599-608	
	AX	Crooke, S. T. , "Progress in Antisense Therapeutics," <i>Medicinal Research Reviews</i> , 1996, 16(4), 319-344	
	AY	Damha, M.J. et al., "An improved procedure for derivatization of controlled-pore glass beads for solid-phase oligonucleotide synthesis", <i>Nucl. Acids Res.</i> , 1990, 18, 3813-3821	
	AZ	Damha et al., "Hybrids of RNA and Arabinonucleic Acids (ANA and 2F-ANA) Are Substrates of Ribonuclease H," <i>J. Am. Chem. Soc.</i> , 1998, 120, 12976-12977	
	BA	De Mesmaeker, A. et al., "Antisense Oligonucleotides", <i>Acc. Chem. Res.</i> , 1995, 28, 366-374	
	BB	Dean, N.M. et al., "Inhibition of protein kinase C- $\alpha$ expression in mice after systemic administration of phosphothioate antisense-oligodeoxynucleotides", <i>Proc. Natl. Acad. Sci.</i> , 1994, 91, 11762-11766	
	BC	DeLisser, H. M. et al., "Molecular and Functional Aspects of PECAM-1/CD31," <i>Immunol. Today</i> , 1994, 15(10), 490-494	
	BD	Dimock, S. et al., "An Efficient Multigram Synthesis of Monomers for the Preparation of Novel Oligonucleotides Containing Isosteric Non-Phosphorous Backbones," <i>Nucleosides &amp; Nucleotides</i> , 1997, 16(7-9), 1629-1632	
	BE	Downward, J. et al., "The ras Superfamily of Small GTP-binding proteins," <i>TIBS</i> , 15, 1990, 469-472	
	BF	Egli, M. et al., "RNA Hydration: A Detailed Look," <i>Biochemistry</i> , 1996, 35, 8489-8494	
<i>GK</i>	BG	Englisch, U. et al., "Chemically Modified Oligonucleotides as Probes and Inhibitors", <i>Angew. Chem. Int. Ed. Eng.</i> , 1991, 30, 613-629	
EXAMINER	<i>G. Kozlowski</i>		DATE CONSIDERED
			5/10/08



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<b>Form PTO-1449 Modified</b>  List of Patent and Publications Cited by Applicant (Use several sheets if necessary)  U.S. Department of Commerce Patent and Trademark Office		Docket No. <b>ISIS-4789</b>	Serial No. <b>09/970,971</b>
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<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
<i>GK</i>	<b>BH</b>	Fedoroff, O. Y. et al., "Structure of a DNA: RNA Hybrid Duplex Why Rnase H Does Not Cleave Pure RNA," <i>J. Mol. Biol.</i> , 1993, 233, 509-523	
	<b>BI</b>	Flanagan et al., "Cellular penetration and antisense activity by a phenoxazine-substituted heptanucleotide," <i>Nat. Biotechnol.</i> , 1999, 17(1), 48-52	
	<b>BJ</b>	Fraser, A. et al., "Synthesis and Conformational Properties of 2'-Deoxy-2'-methylthiopyrimidine and -purine Nucleosides: Potential Antisense Applications," <i>J. Heterocycl. Chem.</i> , 1993, 30, 1277-1287	
	<b>BK</b>	Freier, S.M. et al., "The ups and downs of nucleic acid duplex stability: structure-stability studies on chemically-modified DNA:RNA duplexes", <i>Nucl. Acids Res.</i> , 1997, 25, 4429-4443	
	<b>BL</b>	Gaffney, B.L. et al., "A New Strategy for the Protection of Deoxyguanosine During Oligonucleotide Synthesis", <i>Tetrahedron Letts.</i> , 1982, 23, 2257-2260	
	<b>BM</b>	Gao, Y-G. et al., "Molecular Structure of a DNA Decamer Containing an Anticancer Nucleoside Arabinosylcytosine: Conformational Perturbation by Arabinosylcytosine in B-DNA," <i>Biochem.</i> , 1991, 30(41), 9922-9931	
	<b>BN</b>	Gmeiner, W.H. et al., "Effect of Cytarabine on the NMR Structure of a Model Okazaki Fragment from the SV40 Genome," <i>Biochem.</i> , 1999, 38, 1166-1175	
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	<b>BP</b>	Gotfredsen, C.H. et al., "Novel Oligodeoxynucleotide Analogues Containing A 2'-O-Methylarabinonucleoside," <i>Tetra. Lett.</i> , 1994, 35(37), 6941-6944	
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<i>GK</i>	<b>BR</b>	Gotfredsen, C.H. et al., "Structure of a DNA Duplex Containing a Single 2'-O-Methyl- $\beta$ -D-araT: Combined Use of NMR, Restrained Molecular Dynamics, and Full Relaxation Matrix Refinement," <i>Bioconjugate Chem.</i> , 1996, 7, 680-688	
<b>EXAMINER</b>	<i>G. Kristian</i>		<b>DATE CONSIDERED</b> <i>5/6/06</i>



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<i>GK</i>	<b>BS</b>	Griffin, L. C. et al., "In Vivo Anticoagulant Properties of a Novel Nucleotide-Based Thrombin Inhibitor and Demonstration of Regional Anticoagulation in Extracorporeal Circuits," <i>Blood</i> , 1993, <b>81</b> , 3271-3276	
	<b>BT</b>	Griffiths, C.E.M. et al., "Keratinocyte Intercellular Adhesion Molecule-1 (ICAM-1) Expression Preceedes Derman T Lymphocyte Infiltration in Allergic Contact Dermatitis ( <i>Rhus dermatitis</i> )", <i>Am. J. Pathology.</i> , 1989, <b>135</b> , 1045-1053	
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	<b>BV</b>	Guzaev A. et al., "Synthesis of C-Radiolabeled Oligonucleotides with a Novel Phosphoramidite Reagent," <i>Bioorg. &amp; Med. Chem. Lett.</i> , 1998, <b>8</b> , 1123-1126	
	<b>BW</b>	Hakugawa, J. et al., "The Inhibitory Effect of Anti-Adhesion Molecule Antibodies on Eosinophil Infiltration in Cutaneous Late Phase Response in Balb/c Mice Sensitized with Ovalbumin (OVA)," <i>J. Dermatol.</i> , 1997, <b>24</b> , 73-79	
	<b>BX</b>	Hansske, F. et al., "2' and 3'-Ketonucleosides and their <i>Arabino</i> and <i>Xylo</i> Reduction Products", <i>Tetrahedron</i> , 1984, <b>40</b> , 125-135	
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	<b>BZ</b>	Hegemann, L. et al., "Biochemical Pharmacology of Protein Kinase C and its Relevance for Dermatology", <i>Pharmacology of the Skin</i> , 1992, Ch. 22, CRC Press, Boca Raton, 357-368	
	<b>CA</b>	Himelstein, B. P. et al., "Metalloproteinases in Tumor Progression: The Contribution of MMP-9," <i>Invasion &amp; Metastasis</i> , 1994-95, <b>14</b> , 246-258	
	<b>CB</b>	Ho, V.C. et al., "Treatment of severe lichen planus with cyclosporine", <i>J. Am. Acad. Dermatol.</i> , 1990, <b>22</b> , 64-68	
<i>GK</i>	<b>CC</b>	Horton, N. C. et al., "The Structure of an RNA/DNA Hybrid: A Substrate of the Ribonuclease Activity of HIV-1 Reverse Transcriptase," <i>J. Mol. Biol.</i> , 1996, <b>264</b> , 521-533	
<b>EXAMINER</b> <i>G. Kristan</i>		<b>DATE CONSIDERED</b> <i>5/10/06</i>	



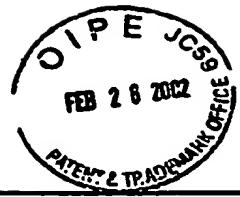
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
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	CE	Hurtenbach, U. et al., "Prednisolone Reduces Experimental Arthritis and Inflammatory Tissue Destruction in Scid Mice Infected with Borrelia Burgdorferi," <i>Int. J. Immunopharmac.</i> , 1996, 18, 281-288	
	CF	Iribarren, A.M. et al., "Resistance to Degradation by Nucleases of (2'S)-2'-Deoxy-2'-C-methyloligonucleotides, Novel Potential Antisense Probes," <i>Antisense Res. Dev.</i> , 1994, 4(2), 95-98	
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	CI	Kabanov, A.V., "A new class of antivirals: antisense oligonucleotides combined with a hydrophobic substituent effectively inhibit influenza virus reproduction and synthesis of virus-specific proteins in MDCK cells", <i>FEBS Letts.</i> , 1990, 259, 327-330	
	CJ	Katocs, A.S. et al., "Biological Testing", <i>Remington's Pharmaceutical Sciences</i> , 18th Ed., Gennaro (ed.), Mack Publishing Co., Easton, PA, 1990, Ch. 27, 484-494	
	CK	Kerr, L. D. et al., "TGF- $\beta$ 1 Inhibition of Transin/Stromelysin Gene Expression Is Mediated Through a Fos Binding Sequence," <i>Cell</i> , 1990, 61, 267-278	
	CL	Kerr, L. D. et al., "Growth Factors Regulate Transin Gene Expression by c-fos-Dependent and c-fos-Independent Pathways," <i>Science</i> , 1988, 242, 1424-1427	
	CM	Kois, P. et al., "Synthesis and Some Properties of Modified Oligonucleotides. 2. Oligonucleotides Containing 2'-Deoxy-2'-Fluoro- $\beta$ -D-Arabinofuranosyl Pyrimidine Nucleosides," <i>Nucleosides Nucleotides</i> , 1993, 12(10), 1093-1109	
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<i>GK</i>	<b>CO</b>	Lane, A. N. et al., "NMR Assignments and Solution Conformation of the DNA-RNA Hybrid Duplex d(GTGAACCT)-r(AAGUUUCAC)," <i>Eur. J. Biochem.</i> , 1993, 215, 297-306	
	<b>CP</b>	Lesnik, E.A. et al., "Oligodeoxynucleotides Containing 2'-O-Modified Adenosine" Synthesis and Effects on Stability of DNA:RNA Duplexes", <i>Biochem.</i> , 1993, 32, 7832-7838	
	<b>CQ</b>	Lesnik, E. A. et al., "Relative Thermodynamic Stability of DNA, RNA, and DNA:RNA Hybrid Duplexes: Relationship with Base Composition and Structure," <i>Biochemistry</i> , 1995, 34(34), 10807-10815	
	<b>CR</b>	Letsinger, R.L. et al., "Cholesteryl-conjugated oligonucleotides: Synthesis, properties and activity as inhibitors of replication of human immunodeficiency virus in cell culture", <i>Proc. Natl. Acad. Sci.</i> , 1989, 86, 6553-6556	
	<b>CS</b>	Lima et al., "Binding Affinity and Specificity of <i>Escherichia coli</i> RNase H1: Impact on the Kinetics of Catalysis of Antisense Oligonucleotide - RNA Hybrids.", <i>Biochemistry</i> , 1997, 36, 390-398	
	<b>CT</b>	Lin et al., "A Cytosine Analogue Capable of Clamp-Like Binding to a Guanine in Helical Nucleic Acids," <i>J. Am. Chem. Soc.</i> , 1998, 120, 8531-8532	
	<b>CU</b>	Lisby, S. et al., "Intercellular adhesion molecule-1 (ICAM-1) expression correlated to inflammation", <i>Br. J. Dermatol.</i> , 1989, 120, 479-484	
	<b>CV</b>	Litwin, M. et al., "Novel Cytokine-independent Induction of Endothelial Adhesion Molecules Regulated by Platelet/Endothelial Cell Adhesion Molecule (CD31)," <i>J. Cell Biol.</i> , 1997, 139(1), 219-228	
	<b>CW</b>	Manoharan, M. et al., "Lipidic Nucleic Acids", <i>Tetrahedron Letts.</i> , 1995, 36, 3651-3654	
	<b>CX</b>	Manoharan M. et al., "Cholic Acid-Oligonucleotide Conjugates for Antisense Applications", <i>Bioorganic Med. Chem. Letts.</i> , 1994, 4, 1053-1060	
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<b>EXAMINER</b> <i>G. Krisler</i>		<b>DATE CONSIDERED</b> <i>5/10/06</i>	



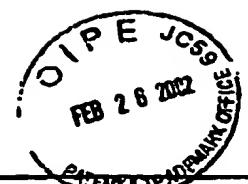
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<i>GK</i>	<b>CZ</b>	Manoharan, M. et al., "Chemical Modifications to Improve Uptake and Bioavailability of Antisense Oligonucleotides", <i>Annals NY Acad. Sciences</i> , 1992, 660, 306-309	
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	<b>DE</b>	Milligan, J. F. et al., "Current Concepts in Antisense Drug Design," <i>J. Med. Chem.</i> , 1993, 36(14), 1923-1937	
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List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant <b>Manoharan et al.</b>	
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	<b>DQ</b>	Roberts, D. D. et al., "Neighboring Methoxy Group Effect in Solvolysis Reactions of Cyclopentyl and Cyclohexyl p-Toluenesulfonates," <i>J. Org. Chem.</i> , 1997, 62, 1857-1859	
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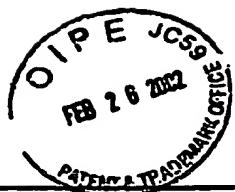
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<b>Form PTO-1449 Modified</b>		Docket No. <b>ISIS-4789</b>	Serial No. <b>09/970,971</b>
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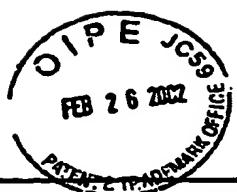
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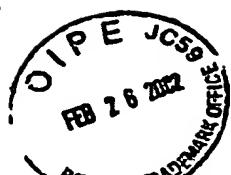
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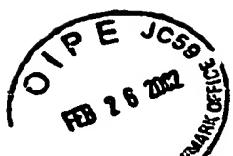
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		Applicant <b>Muthiah Manoharan et al.</b>	
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	<b>GI</b>	Ragathan, R., "Modification of the 2 <sup>1</sup> -Position of Purine Nucleosides: Synthesis of 2 <sup>1</sup> -a-Substituted-2 <sup>1</sup> -Deoxyadenosine Analogs", <i>Tetra. Lett.</i> , 1977, 15, 1291-1294	
	<b>GJ</b>	Rao, T. S. et al., "A Novel One-step Procedure for the Conversion of Thymidine into 2,3'-Anhydrothymidine," <i>J. Chem. Soc. Chem. Commun.</i> , 1989, 997-998	
	<b>GK</b>	Robins, M. J. et al., "Nucleic acid related compounds: 41. Restricted furanose conformations of 3',5'-O-(1,1,3,3-tetraisopropylidisilox-1,3-diyl) nucleosides provide a convenient evaluation of anomeric configuration," <i>Can. J. Chem.</i> , 1983, 61, 1911-1920	
	<b>GL</b>	Ryan et al., "Synthesis of 2-Thio-D-ribose and 2'-Thioadenosine Derivatives", <i>J. Org. Chem.</i> , 1971, 36(18), 2646-2657	
	<b>GM</b>	Shibahara et al., "Inhibition of human immunodeficiency virus (HIV-1) replication of synthetic oligo-RNA derivatives", <i>Nucl. Acids Res.</i> , 1989, 17(1), 239-252	
<i>GK</i>	<b>GN</b>	Sproat, B.S. et al., "Highly Efficient Chemical Synthesis of 2'-O-methyloligonucleotides and Tetraiodinated Derivatives; Novel Probes that are Resistant to Degradation by RNA or DNA Specific Nucleases", <i>Nucl. Acids Res.</i> , 1989, 17, 3373-3386	
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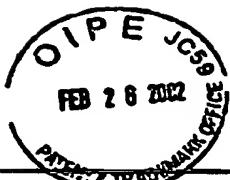
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List of Patent and Publications Cited by Applicant (Use several sheets if necessary)		Applicant Manoharan et al.	
U.S. Department of Commerce Patent and Trademark Office		Filing Date October 4, 2001	Group Not yet assigned
<b>OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)</b>			
<i>GK</i>	GO	Sproat, B. S. et al., "New synthetic routes to protected purine 2-O-methylriboside-3'-O-phosphoramidites using a novel alkylation procedure," <i>Nucl. Acids Res.</i> , 1990, 18, 41-49	
	GP	Uesugi, S. et al., "A Linear Relationship Between Electronegativity of 2'-Substituents and Conformation of Adenine Nucleosides," <i>Tetrahedron Letts.</i> , 1979, 42, 4073-4076	
	GQ	Uesugi et al., "Improved Synthesis of 2'-Fluoro-2'-Deoxyadenosine and Synthesis and Carbon-13 NMR Spectrum of Its 3',5'-Cyclic Phosphate Derivative", <i>Nucleosides &amp; Nucleotides</i> , 1983, 2, 373-385	
	GR	Uhlmann et al., "Antisense Oligonucleotides: A New Therapeutic Principle", <i>Chem. Rev.</i> , 1990, 558	
	GS	Zon, G., "Oligonucleotide analogues as potential chemotherapeutic agents," <i>Pharmaceutical Res.</i> , 1988, 5(9), 539-547	
	GT	Cheatham, T. E. et al., "Molecular Dynamics Simulations Highlight the Structural Differences among DNA:DNA, RNA:RNA, and DNA:RNA Hybrid Duplexes," <i>J.Am. Chem.Soc.</i> , 1997, 119, 4805-4825	
	GU	Jaishree, T. N. et al., "Structural Influence of RNA Incorporation in DNA: Quantitative Nuclear Magnetic Resonance Refinement of d(CG)r(CG)d(CG) and d(CG)r(C)d(TAGCG)," <i>Biochemistry</i> , 1993, 32, 4903-4911	
<i>GKC</i>	GV	Nishizaki, T. et al., "Solution Structures of DNA Duplexes Containing a DNA•RNA Hybrid Region, d(GG)r(AGAU)d(GAC)•d(GTCATCTCC) and d(GGAGA)r(UGAC)•d(GTCATCTCC)†‡," <i>Biochemistry</i> , 1996, 35, 4016-4025	
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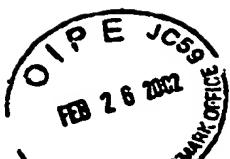
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			Applicant Manoharan et al.			
U.S. Department of Commerce Patent and Trademark Office			Filing Date October 4, 2001	Group Not yet assigned		
U. S. PATENT DOCUMENTS						
Examiner Initial		Document No.	Date	Name	Class	Subclass
<i>GK</i>	GW	3,687,808	08/29/72	Merigan et al.	195	28
	GX	4,689,320	08/25/87	Kaji	514	44
	GY	4,806,463	02/21/89	Goodchild et al.	435	5
	GZ	5,004,810	04/02/91	Draper	536	27
	HA	5,166,195	11/24/92	Ecker	514	44
	HB	5,194,428	03/16/93	Agrawal et al.	514	44
	HC	5,212,295	05/18/93	Cook	536	26.7
	HD	5,242,906	09/07/93	Pagano et al.	514	44
	HE	5,248,670	09/28/93	Draper et al.	514	44
	HF	5,442,049	08/15/95	Anderson et al.	536	24.5
	HG	5,457,189	10/10/95	Crooke et al.	536	24.5
	HH	5,514,577	05/07/96	Draper et al.	435	238
	HI	5,514,788	05/07/96	Bennett et al.	536	23.1
<i>GK</i>	HJ	5,523,389	06/04/96	Ecker et al.	536	23.1
FOREIGN PATENT DOCUMENTS						
Examiner Initial		Document No.	Date	Country	Translation YES NO	
<i>GK</i>	HK	WO 89/12060	12/14/89	PCT		
<i>GK</i>	HL	WO 94/08003	04/14/94	PCT		
<i>GK</i>	HM	WO 92/03568	03/05/92	PCT		
EXAMINER	<i>G. Karthikam</i>			DATE CONSIDERED	<i>5/10/06</i>	



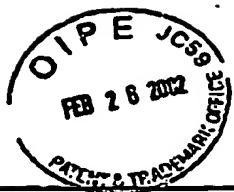
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List of Patent and Publications Cited by Applicant (Use several sheets if necessary)				Filing Date October 4, 2001	Group Not yet assigned	
U.S. Department of Commerce Patent and Trademark Office				U. S. PATENT DOCUMENTS		
Examiner Initial		Document No.	Date	Name	Class	Subclass
<i>GK</i>	HN	5,580,767	12/03/96	Cowser et al.	435	172.3
	HO	5,582,972	12/10/96	Lima et al.	435	6
	HP	4,381,344	04/1983	Rideout et al.	435	87
	HQ	5,013,830	05/07/91	Ohtsuka et al.	536	27
	HR	5,134,066	07/28/92	Rogers et al.	435	91
	HS	5,212,295	05/18/93	Cook	536	26.7
	HT	5,214,135	05/25/93	Srivastava et al.	536	26.7
	HU	5,466,786	11/14/95	Buhr et al.	536	26.26
	HV	5,658,731	08/19/97	Sproat et al.	435	6
	HW	5,672,695	09/30/97	Eckstein et al.	536	24.5
<i>GK</i>	HX	5,698,687	12/16/97	Eckstein et al.	536	25.3
FOREIGN PATENT DOCUMENTS						
Examiner Initial		Document No.	Date	Country	Translation YES	NO
<i>GK</i>	HY	2,017,369	05/23/90	Canada	X	
<i>GK</i>	HZ	0 260 032	08/27/87	EP	X	
<i>GK</i>	IA	0 287 313	10/19/88	EP	X	
	IB	0 399 330	05/15/90	EP		X
<i>GK</i>	IC	0 417 999	03/10/91	EP	X	
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			Applicant Manoharan et al.			
			Filing Date October 4, 2001	Group Not yet assigned		
U. S. PATENT DOCUMENTS						
Examiner Initial		Document No.	Date	Name	Class	Subclass
GK	ID	5,245,022	09/14/93	Weis et al.	536	24
	IE	5,627,053	05/06/97	Usman et al.	435	91
	IF	5,639,647	06/17/97	Usman et al.	435	199
	IG	5,817,635	10/06/98	Eckstein et al.	514	44
GK	IH	5,859,221	01/12/99	Cook et al.	536	23
FOREIGN PATENT DOCUMENTS						
Examiner Initial		Document No.	Date	Country	Translation	
GK	II	39 15462 A1	06/09/90	Germany	Considered Derwent English Abstract	X
	IJ	41 10085 A1	10/01/92	Germany	Considered English Abstract	X
	IK	WO 90/15814	12/27/90	PCT	X	
	IL	WO 91/06556	05/16/91	PCT	X	
	IM	WO 91/15499	10/17/91	PCT	Considered English Abstract	X
	IN	WO 92/07065	04/30/92	PCT	X	
	IO	339 842	11/02/89	EP		
	IP	0 552 178 B1	01/02/97	EP		
GK	IQ	1 205 021	05/27/86	Canada		
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U.S. Department of Commerce Patent and Trademark Office		Filing Date <b>October 4, 2001</b>	Group <b>Not yet assigned</b>

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Examiner Initial		Document No.	Date	Name	Class	Subclass
GC	IR	5,582,986	12/10/96	Monia et al.	435	6
	IS	5,591,600	01/07/97	Ecker	435	69.1
	IT	5,591,623	01/07/97	Bennett et al.	435	240.2
	IU	5,591,720	01/07/97	Anderson et al.	514	44
	IV	5,607,923	03/04/97	Cook et al.	514	44
	IW	5,620,963	04/15/97	Cook et al.	514	44
	IX	5,639,649	06/17/97	Almond et al.	435	235.1
	IY	5,658,891	08/19/97	Draper et al.	514	44
	IZ	5,661,134	08/26/97	Cook et al.	514	44
	JA	5,681,747	10/28/97	Boggs et al.	435	375
	JB	5,681,944	10/28/97	Crooke et al.	536	24.5
	JC	5,877,309	03/02/99	McKay et al.	536	24.5
	JD	5,985,558	11/16/99	Dean et al.	435	6
	JE	5,955,443	09/21/99	Bennett et al.	514	44
	JF	6,111,094	08/29/00	Bennett et al.	536	24.5
	JG	5,334,711	08/02/94	Sproat, et al.	536	24.5
	JH	6,300,491	10/09/01	Bennett et al.	536	24.5
	JL	5,670,633	09/23/97	Cook et al.	536	23.1
SK	JJ	6,307,040	10/23/01	Cook et al.	536	24.5

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